

Date: Mon, 8 Mar 93 17:42:42 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #292  
To: Info-Hams

Info-Hams Digest                    Mon, 8 Mar 93                    Volume 93 : Issue 292

Today's Topics:

Any experience with 8873 (conduction cooled triode)?  
FREE INTERNET ACCESS TO HAM NEWSGROUPS  
How to use Mir via packet?  
Japanese CB equipment for 903Mhz?  
Knwd TS440S SWR shutdown (2 msgs)  
Lightning and inside wiring  
MILLIVAC RF VOLTMETER  
Old RF amps and new FCC power limits  
PC board supplies in manhattan  
Rich Arlund resigns from QRP column  
Subscribing to CQ HAM RADIO  
ts450 mod help needed  
ts450 mod help needed [General Coverage X-Mit Mod]  
What would the ratio of logs mean?  
When is the Dayton Hamvention?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Mon, 8 Mar 1993 22:49:46 GMT  
From: sdd.hp.com!hpscit.sc.hp.com!news.dtc.hp.com!col.hp.com!fc.hp.com!  
jayk@network.UCSD.EDU  
Subject: Any experience with 8873 (conduction cooled triode)?  
To: info-hams@ucsd.edu

Rajiv Dewan (rdewan@casbah.acns.nwu.edu) wrote:  
: Leafing through the QST from the 70's, I noticed the 8873 tube

: from Eimac. About 500 W plate dissipation and \*conduction cooled\*.

: It was used in the Heath SB230 amp. The 1974 ARRL Handbook has  
: a linear design that uses two of these.

: I would appreciate hearing from you if you used these or have  
: heard interesting stories about them.

: Rajiv

I have a Alpha 76PA that uses three 8874s, same tube but air cooled.  
Unless you have a good (read cheap) source for the tubes they are very  
expensive. The newer 3CX800 is a much better value. I don't know what  
case styles are available with the 3CX800.

73, Jay K0GU jayk@fc.hp.com

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Date: Mon, 8 Mar 1993 22:45:19 GMT  
From: usc!howland.reston.ans.net!gatech!concert!uvaarpa!murdoch!  
livia.acs.Virginia.EDU!jeg7e@network.UCSD.EDU  
Subject: FREE INTERNET ACCESS TO HAM NEWSGROUPS  
To: info-hams@ucsd.edu

In article <1993Mar8.131620.2129@lub001.lamar.edu> lairdpg@lub001.lamar.edu  
writes:

>  
>Due to several folks asking about free internet access, I feel it is in order  
>make a mention:

I feel it is in order to correct your mistake, USENET is NOT Internet, though  
it is carried by the latter network, it originated on UUCPnet, and I beleive  
that best decribes what you are talking about.

The UUCP net interacts with the Internet to carry mail, news and other data  
and services but should not be confused with each other. They are seperate  
and distinct.

--

These Opinions are EXCLUSIVELY \*MINE\*, unless specified otherwise.

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| Jon Gefaell, Computer Systems Engineer \ /\_\_\_ | SILENCE = DEATH  
| Security and Technology Planning R&D \ / / | Homophobia is a  
| I.T.C. Administrative Computing Services \ / / | Social Disease!  
| The University, UVA. Carruthers Hall \/\ / | 73 de KD4CQY  
~~~~~\~~~~~\~~~~~\~~~~~

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Date: 8 Mar 93 19:03:22 EST

From: titan.ksc.nasa.gov!k4dii.ksc.nasa.gov!user@ames.arpa

Subject: How to use Mir via packet?

To: info-hams@ucsd.edu

In article <9303081434.aa00804@cbda7.apgea.army.mil>,  
wejones@cbda7.apgea.army.mil (Bill Jones) wrote:

> Last night I had my receiver on the MIR frequency, and all of a sudden I  
> heard a lot of activity. I checked, and sure enough, it was R2MIR-1.

Bill-

I've been monitoring 145.550 MHz for the last week, up to Saturday, without seeing any trace of R2MIR. I'm glad to hear they're back on packet.

MIR is using a Pac-Comm "Handi-Packet" TNC with "PMS" mini-PBBS. If they are at the keyboard, they will be using R2MIR(-0). The PMS uses R2MIR-1, as you have observed. I've never observed them at the keyboard, but you never know.

Your experience compares with mine, except after months of trying, I knew what to expect. I'm using YAPP version 2, on an MS-DOS disk-based laptop, a Pac-Comm MicroPower-2 TNC, a 25 watt transceiver to a 6 dB vertical antenna, about 30 feet above ground.

I had a small message prepared and saved as a text file on disk, which included the command, "S", the subject, the message and the "/ex" to end the upload. The message length must be tailored to the time available to send it through the expected QRM, during the short time available. As soon as I received an indication that I was successfully connected, I uploaded the prepared file.

I've made several short contacts with their PMS, usually aborted because of QRM. On many occasions, I received the "busy" notice from MIR. This is one situation where rejection can be viewed as an accomplishment.

Several times I successfully digipeated a beacon via MIR. On two of these occasions, other stations who saw my beacon, connected to me via MIR! Unfortunately, the "connect" message was as far as we ever got. I also managed to make one voice contact with a member of about two crews back.

MIR seems to have been on the air only sporadically in recent days. Therefore, the patient ham will probably have more success, since there will be less QRM. It will help if you have a good prediction program, like Traksat for MS-DOS or OrbiTrack for Macintosh. You can download fresh

orbital parameters from archive.afit.af.mil, in the /pub/space directory. As of today, the latest data was contained in the file, TLE.153, dated 3/6/93. It contained MIR data dated 93063, which is the Julian date of 3/4/93. Unless there is an orbit change, this data should be good for another week.

Good Luck & 73  
Fred, K4DII

fred-mckenzie@ksc.nasa.gov

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Date: Mon, 8 Mar 1993 22:52:22 GMT  
From: usc!howland.reston.ans.net!agate!stanford.edu!Csli!kawai@network.UCSD.EDU  
Subject: Japanese CB equipment for 903Mhz?  
To: info-hams@ucsd.edu

Kevin Purcell (N7WIM / G8UDP) asks:

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| | From rec.radio.cb FAQ
| |
| | --- in Japan
| | 903.0125-904.9875 FM      "Personal Radio" maximum power 5W
| |                               158 channels with 12.5 kHz spacing
| |                               External antennas are permitted.
| |                               Radios must be equipped with a control ROM
| |                               for automatic ID.
|
| Any one see the last variety? How much do they cost in Japan?
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It was once a big fad. Not so popular anymore. Hardly any manufacturers make them nowadays. New rigs go for about 90,000 yen list (that's about 780 dollars), with aggressive discounting available due to low demand. Used equipment is even cheaper.

I wouldn't recommend them if you're planning to use them as 900 MHz radios in the U.S., because you cannot manually control the transceive frequency. The rigs find the first open channel automatically.

Even if you were to agree with that restriction, you would still have to get a ROM (it has the callsign in it, among other things). You cannot transmit without the ROM. When you buy the rig, it comes with a postcard that you mail in, and they ship you a ROM, with a Japanese CB callsign. Good if you're using the rig in Japan, but awkward elsewhere.

I've had fun with these. Actually had meaningful, useful conversations on several occasions. Most often, they seemed to be used by teenagers to meet

other teenagers of the opposite sex. I was too old for that!

-goh-

-----  
Speech Research Program, SRI, Menlo Park, CA 94025-3493 USA  
--- Goh Kawai --- work:(415)859-2231 fax:(415)859-5984 home:(415)323-7214  
----- internet: kawai@speech.sri.com radio: n6uok and 711fqe

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Date: Mon, 8 Mar 1993 21:04:09 GMT  
From: sdd.hp.com!hpscit.sc.hp.com!cupnews0.cup.hp.com!news1.boi.hp.com!hp-pcd!  
hpcvra!gregm@network.UCSD.EDU  
Subject: Knwd TS440S SWR shutdown  
To: info-hams@ucsd.edu

In the alignment procedure, there is an adjustment to what level the protection circuit limits output power. It is 30W at 150 ohm load. It should taper from there. From other experiences the Kenwood SWR protection circuit, you should see a power drop at 2:1 and it gets worse from there.

I would first check to make sure your SWR readings are correct using another external SWR bridge. The fact that the tuner works suggests and that it happened all of a sudden, suggests that it is in the protection circuit and is probably a component that when bad.

Also I would not attempt to do this one adjustment without being prepared to do the rest of the adjustments that follow. This adjustment is #4 of 13.

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Date: 8 Mar 93 19:09:50 EST  
From: titan.ksc.nasa.gov!k4dii.ksc.nasa.gov!user@ames.arpa  
Subject: Knwd TS440S SWR shutdown  
To: info-hams@ucsd.edu

In article <232170002@hpcvra.cv.hp.com>, gregm@hpcvra.cv.hp.com (Greg May) wrote:

> In the alignment procedure, there is an adjustment to  
> what level the protection circuit limits output power. It  
> is 30W at 150 ohm load. It should taper from there. From  
> other experiences the Kenwood SWR protection circuit, you  
> should see a power drop at 2:1 and it gets worse from there.  
> I would first check to make sure your SWR readings are correct  
> using another external SWR bridge. The fact that the tuner

> works suggests and that it happened all of a sudden, suggests  
> that it is in the protection circuit and is probably a component  
> that when bad.

Greg & Chuck-

Another thing to look for is a bad shield connection in the Co-Ax, between the TS-440 and the bridge or tuner.

73, Fred, K4DII

fred-mckenzie@ksc.nasa.gov

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Date: Mon, 8 Mar 93 22:51:11 GMT  
From: usc!howland.reston.ans.net!news.ans.net!nynexst.com!fovea!  
atul@network.UCSD.EDU  
Subject: Lightning and inside wiring  
To: info-hams@ucsd.edu

In article 23343@ke4zv.uucp, gary@ke4zv.uucp (Gary Coffman) writes:

> ...  
> (b) Location. Antenna discharge units shall be located  
> outside the building or inside the building between the  
> point of entrance of the lead-in and the radio set or  
> transformers, and as near as practicable to the entrance  
> of the conductors to the building. The antenna discharge  
> unit shall not be located near combustible material nor  
> in a hazardous (classified) location as defined in  
> Article 500.  
>

>Note that they recommend that the antenna mast be grounded directly  
>in an identical manner to lightning rods, and that the discharge  
>unit be mounted to the mast at the grounding connection.

>  
> (c) Grounding. The antenna discharge unit shall be  
> grounded in accordance with Section 810-21.  
>  
>

>Section 810-21

>  
> (e) Run in Straight line. The grounding conductor for  
> an antenna discharge unit shall be run in as straight  
> a line as practicable from the mast or discharge unit  
> to the grounding electrode.  
>

>This is critical. Any sharp bends will add enough inductance to  
>restrict the flow of discharge currents.  
>  
> (g) Inside or Outside Building. The grounding conductor  
> shall be permitted to be run either inside or outside  
> the building.  
>

I mounted a receive only long wire antenna from my second floor window to a nearby tree. I was planning to sink an 8 ft ground rod right below the window. I tried pushing the rod into the ground in the vicinity of the window. Unfortunately, I cannot make the rod go more than 2 ft deep. I guess there must be rocks in the earth. My only other recourse is to run the ground wire down to the basement, through the metal frame of the basement window, to the cold water pipe (just before the water meter and valve). Incidentally, the electrical ground for the house wiring is tapped from the same location.

I plan to install a lightning arrestor just outside the second floor window.

Am I going to violate any code by running the ground wire for an outdoor antenna through a metal window frame to a cold water pipe instead of running it to a grounding rod outside the house?

>Gary

Thanks.

--Atul

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Atul K. Chhabra                                          Phone: (914)644-2786  
Member of Technical Staff                                Fax: (914)644-2404  
NYNEX Science & Technology                        Internet: atul@nynexst.com  
500 Westchester Avenue  
White Plains, NY 10604

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Date: Mon, 8 Mar 93 22:52:23 GMT  
From: netcomsv!butch!iscnvx!news@decwrl.dec.com  
Subject: MILLIVAC RF VOLTMETER  
To: info-hams@ucsd.edu

I need a manual for a MILLIVAC RF VOLTMETER mod. MV-823A-1.I'm willing to pay to have one copied.Also does anybody know what type of diode is used

in the probe?They look like some type of signal diode.I might have to replace them (2?).

THX's BILL WZ7W

Please email gayhart1@mailhub.scf.lmsc.lockheed.com

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Date: Mon, 8 Mar 1993 21:26:33 GMT

From: usc!zaphod.mps.ohio-state.edu!saimiri.prmate.wisc.edu!sal.wisc.edu!  
larry.sal.wisc.edu!sde@network.UCSD.EDU

Subject: Old RF amps and new FCC power limits

To: info-hams@ucsd.edu

Most older amplifiers were not designed for CW operation in the SSB position, though you can get away with it with some of them. The TL-922, according to its manual, is one with which you cannot. The SB-220 will put out about 1200 W on cw, in the SSB position, for a while. The rectifiers should be replaced with high current units, as well as the bias zener diode. The SB-220 power transformer is adequate for casual CW operation at high power, but it will overheat if you transmit CW continuously, such as when calling CQ a lot in a contest. It's a good idea to make sure the fan is working right, the tubes are nice and clean, and that the sheet metal near the tubes is painted black.

Scott Ellington K9MA  
sde@larry.sal.wisc.edu

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Date: Mon, 8 Mar 1993 23:17:58 GMT

From: usc!howland.reston.ans.net!spool.mu.edu!sol.ctr.columbia.edu!  
news.columbia.edu!cunixf.cc.columbia.edu!mac20@network.UCSD.EDU

Subject: PC board supplies in manhattan

To: info-hams@ucsd.edu

Can anyone suggest a store in manhattan where i might buy  
photo-etching supplies such as photo-sensitive pc boards  
and developer?

most of the mail order places i've tried have minimum order requirements  
and i just need a couple things \_quick\_

Thanks and 3's  
Mike  
WB2ZLW/AA

\*\*\*\*\*

\*\*\*\* "Of course TV is a medium, \*\*\*\*

\*\*\* It's not rare, \*\*\*

\*\*\* And it's certainly not well done." \*\*\*

-----  
Date: 9 Mar 93 00:30:23 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Rich Arlund resigns from QRP column  
To: info-hams@ucsd.edu

In his last column he cited his reasons for not writing any more columns: to many QRPs think QRP work is synonymous with CW HF whereas he has been trying to encourage a more "modern" approach to QRP using AMTOR, satellites and VHF mountain topping, to name but a few examples. He claims a lack of response from fellow QRPs that caused him to stop trying to convert them to his form of thinking and ultimately to feel his column was getting nowhere.

Or is this just another case of QRP columnist burnout (like Ade Weiss, for example)?

Any responses? Have you tried any of the other digital modes QRP?

Kevin Purcell N7WIM / G8UDP  
a-kevinp@microsoft.com  
"We conjure the spirits of the computer with our spells"

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Date: 8 Mar 93 23:23:41 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Subscribing to CQ HAM RADIO  
To: info-hams@ucsd.edu

Has anyone got the info on subscribing to this famous Japanese journal (I can't read the text but I'd like to be able to look at the pictures!). Do they take credit cards? Do they do 'gaijin' subscriptions?

Post or mail to me.

Kevin Purcell N7WIM / G8UDP  
a-kevinp@microsoft.com  
"We conjure the spirits of the computer with our spells"

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Date: 8 Mar 93 22:24:16 GMT  
From: amdahl!JUTS!duts!rcn30@uunet.uu.net  
Subject: ts450 mod help needed

To: info-hams@ucsd.edu

Can anyone help me out with an ALL Transmit mod for a Kenwood 450.

Is this Mod the same as the MARS Mod?

thanks in advance

rob

Date: 8 Mar 1993 22:49:34 GMT

From: usc!howland.reston.ans.net!newsserver.ivnc.net!vale.edu!at.cs.utexas.edu!

news.Brown.EDU!stout!robinson@network.UCSD.EDU

Subject: ts450 mod help needed [General] Coverage X-Mit Mod

To: info-hams@ucsd.edu

In article <d1PJ02JX39F401@JUTS.ccc.amdahl.com> rcn30@DUTS.ccc.amdahl.com (Rob C Novak) writes:

>Can anyone help me out with an ALL Transmit mod for a Kenwood 450.

>Is this Mod the same as the MARS Mod?

>thanks in advance

>rob

Here it is.... other mods like this one for many radios can be had from the anonymous ftp server at 'ftp.geo.brown.edu' and can be found in the directory /pub/hamradio/rigmods/<manufacturer name>/\*.

Regards, Darren, N1LLV

copied from packet:

Sh: MODIFICATION OF TS-450SAT

Best 73 Eric St-Pascal Kam. Oc. VE2MEL

I haven't tried or verified this, proceed at your own risk. And do not transmit outside of legal bands! WA2ISE

, Darrin E. Robinson (DER31) Hamnet N1LLV 146.700-, 146.880- MHz  
/| Systems Programmer Internet darrin@MIT.EDU  
\\ Dist. Computing & Network Services robinson@Planetary.Brown.EDU  
\\ M.I.T. Information Systems ICBMnet 41 29 24 N 71 18 48 W (NPT)  
/| 1 Amherst St. - Rm E40-338 SPANet PGGIPL::ROBINSON (7132)  
' Cambridge, MA 02139, USA AT&Tnet (617) 253-0131

Date: 9 Mar 93 00:20:53 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: What would the ratio of logs mean?  
To: info-hams@ucsd.edu

Plotting  $\log(A)/\log(B)$  vs  $\log(B)$  gives a straight line for a quadratic in  $\log(B)$ . In fact plotting  $A/B$  vs  $B$  is a pretty standard thing to do for turning a quadratic relationship into a straight line (like determining reaction rates in a second order chemical reaction).

Tf

$m$  = slope of the line  
 $c$  = intercept on the Log(A)/Log(B) axis

$$\log(A)/\log(B) = m * \log(B) + c$$

Rearranging,

$$\log(A) = m * \log(B) * \log(B) + c * \log(B)$$

or

$$m * \log(B) ** 2 + c * \log(B) - \log(A) = 0$$

As regards significance, I can't think of one. As W7EL pointed out log(A) vs log(B) would give the power law relationship between the variables (often important in biology, for example the log(number of a species) plotted against log(mass of a member of the species) is a straight line -- large animals are rare!).

In this case i can't think of any explaination for this in this case.

Another thing to be wary. Plots can look a lot better in log/log form because the errors get hidden. If the values of A and B dont vary over many decades (or whatever the base of the log is) then I wouldn't try to use a log/log plot. I would imagine this to be the case (the birth weight of a bat can vary at most by a factor of 2 I would think). Plot the thing with

error bars -- do the errors look large compared to the fit to the line?

Better come up with a model for the process under investigation than randomly dinking plots with a computer based stats package!

Once again demonstrating that, like being catholic, one can't stop being a scientist (same is true for formally trained engineers!).

Kevin Purcell N7WIM / G8UDP

a-kevinp@microsoft.com

"We conjure the spirits of the computer with our spells"

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Date: 9 Mar 1993 00:20:20 GMT  
From: meadata!dem@uunet.uu.net  
Subject: When is the Dayton Hamvention?  
To: info-hams@ucsd.edu

ring> When is the Dayton Hamvention?

April 23, 24, & 25.

ring> How much is registration?

\$11 in advance, \$14 at the door (the banquet is \$22 in advance, \$24 at the door - Cliff Stoll is the speaker). Send advance registration to Dayton Hamvention, Box 1446, Dayton, OH 45401-1446. Call (513) 454-1456 for more information.

ring> Is there info (like a schedule of sessions) I can get someplace?

I'm not aware of one. Perhaps you get one when you register.

I'm not affiliated with the Hamvention or DARA. I just got a flyer for the event in the mail.

--

|                    |                              |                       |
|--------------------|------------------------------|-----------------------|
| David Myers        | "You guys listen to managers | (513) 865-1343        |
| Mead Data Central  | much too often."             | Fabrication Systems   |
| P.O. Box 933       | My manager                   | dem@meadata.com       |
| Dayton, Ohio 45401 | 2/5/93                       | ...!uunet!meadata!dem |

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Date: Mon, 8 Mar 93 22:35:00 GMT

From: mnemosyne.cs.du.edu!nyx!jmaynard@uunet.uu.net

To: info-hams@ucsd.edu

References <1n9bbq\$19g@bigboote.WPI.EDU>, <1993Mar7.220133.1@vaxc.stevens-tech.edu>, <C3Kt5o.3H2@constellation.ecn.uoknor.edu>0

Subject : Re: Peripher (and rubber radios)

In article <C3Kt5o.3H2@constellation.ecn.uoknor.edu> jahern@geohub.gcn.uoknor.edu writes:

>Well, gotta run. I'm gonna stick my IC24at behind my car and drive over it to see if it's as tough as those Alincos...

I don't have to do it to my MT500: I \_know\_ it'd take it.

Real hams use radios by Motorola.

Now if they made an equivalent to my Standard C628 440/1200 dualbander...

--  
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can  
jmaynard@oac.hsc.uth.tmc.edu | adequately be explained by stupidity.  
"Support your local medical examiner - die strangely." -- Blake Bowers

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End of Info-Hams Digest V93 #292

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